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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/785,157

02/25/2004

John G. Carman

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8150

7590

09/11/2008

Mr. Fuller  
FENNEMORE CRAIG  
Suite 2600  
3003 N. Central Avenue  
Phoenix, AZ 85012

EXAMINER

ROBINSON, KEITH O NEAL

ART UNIT

PAPER NUMBER

1638

MAIL DATE

DELIVERY MODE

09/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/785,157	<b>Applicant(s)</b> CARMAN, JOHN G.	
	<b>Examiner</b> KEITH O. ROBINSON	<b>Art Unit</b> 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-12,15,17-24 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12,15,17-24 and 27-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. Applicant's amendment of claims 1, 4, 10 and 27-32 and cancellation of claims 5, 13, 14, 16, 25 and 26, filed May 27, 2008, have been received and entered in full.

2. Claims 1-4, 6-12, 15, 17-24 and 27-32 are under examination.

### ***Response to Arguments***

3. Applicant's arguments, see page 10, last two lines to page 12, line 4 of 'Remarks' filed May 27, 2008, regarding the 35 USC 103 rejection of claims 1-3, 12, 15 and 17 as being unpatentable over Bashaw (Apomixis in crop improvement. In Hybridization of crop plants. 1980. pages 45-63), in view of Dujardin et al (Euphytica 38: 229-235, 1988) on page 3, 1<sup>st</sup> full paragraph to page 4, line 2 of the Office Action mailed December 26, 2007 is persuasive. The rejection has been withdrawn because the cited references fail to teach or suggest the claimed invention.

### ***Claim Rejections - 35 USC § 103***

4. Claims 1-3, 12, 15 and 17 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lutts et al (Euphytica 78: 19-25, 1994), in view of Ogburia et al (Euphytica 88: 9-16, 1996), in further view of Bashaw et al (Apomictic grasses, *In* Principles of cultivar development, Vol. 2, pages 41-83, 1987). The rejection is repeated for the reasons of record as set forth on pages 2-3 of the Office Action mailed

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December 26, 2007). Applicant's arguments, filed May 27, 2008, have been fully considered but are not persuasive.

Applicant argues that none of the prior art references teach the step of quantifying divergence in female developmental schedules of plants from an angiospermous plant species, genus or family, including collecting data comprising the meiotic or embryo sac development stage, pistil length and width, inner and outer integument lengths and meiocyte or embryo sac length and width or the identification and selection step of step (b) (see page 10, 1<sup>st</sup> full paragraph of 'Remarks' filed May 27, 2008).

This is not persuasive. Ogburia et al teach the study of embryo-sac development and the quantification and collection of data regarding embryo-sac development as well as the sampling of pistils at various times and days (see page 10, 1<sup>st</sup> column, 'Experimental protocols' where it teaches that the size of embryo-sacs were measured with ocular micrometer and the quantification of mature pistils at different times and days). One of ordinary skill in the art would appreciate that sampling of mature pistils at different times and different days is analogous to quantifying divergence in female developmental schedules and that the measuring of embryo-sacs is analogous to collecting data comprising embryo-sac development stages.

Though Ogburia et al do not teach inner and outer integument lengths and meiocyte or embryo sac length and width, it would be obvious to one of ordinary skill in the art that data from various reproductive parts of a plant can be collected and quantified. See MPEP 2141(II) (C) where it states, "A person of ordinary skill in the art is

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also a person of ordinary creativity, not an automaton.”KSR, 550 U.S. at \_\_\_\_, 82 USPQ2d at 1397. “[I]n many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.”Id. Office personnel may also take into account “the inferences and creative steps that a person of ordinary skill in the art would employ.”Id. at \_\_\_\_, 82 USPQ2d at 1396”.

5. Claims 1-4, 6-12, 15, 17-24 and 27-32 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lutts et al (Euphytica 78: 19-25, 1994), in view of Ogburia et al (Euphytica 88: 9-16, 1996), in further view of Koul et al (Euphytica 28: 457-464, 1979, Hussey et al (Euphytica 54: 141-145, 1991), Hana et al (Crop Sci. 27: 1136-1139, 1987) and Kroon et al (Euphytica 23: 345-352, 1974). The rejection is repeated for the reasons of record as set forth on pages 4-6 of the Office Action mailed December 26, 2007). Applicant’s arguments, filed May 27, 2008, have been fully considered but are not persuasive.

Applicant argues that none of the cited references, alone or in combination, teach the step of quantifying divergence in female developmental schedules of plants from an angiospermous plant species, genus or family and further fail to teach or suggest the step of identifying and selecting a first and second sexual plant from an angiospermous plant species, genus or family based on differences in the timing of female developmental schedules quantified in step (a) (see page 12, 2<sup>nd</sup> paragraph to page 13, lines 1-4 of ‘Remarks’ filed May 27, 2008).

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This is not persuasive. As stated above, Ogburia et al teach the study of embryo-sac development and the quantification and collection of data regarding embryo-sac development as well as the sampling of pistils at various times and days (see page 10, 1<sup>st</sup> column, 'Experimental protocols' where it teaches that the size of embryo-sacs were measured with ocular micrometer and the quantification of mature pistils at different times and days). One of ordinary skill in the art would appreciate that sampling of mature pistils at different times and different days is analogous to quantifying divergence in female developmental schedules and that the measuring of embryo-sacs is analogous to collecting data comprising embryo-sac development stages.

In addition, Lutts et al teach a method of producing an apomictic plant from sexual plants wherein a first plant and a second plant are hybridized, seed is recovered and a hybrid plant is selected. It would be obvious to one of ordinary skill in the art that the teachings of Ogburia et al, as discussed above, combined with the teachings of Lutts et al would be analogous to the step of identifying and selecting a first and second sexual plant from an angiospermous plant species, genus or family based on differences in the timing of female developmental schedules.

### ***Conclusion***

6. No claims are allowed.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEITH O. ROBINSON whose telephone number is (571)272-2918. The examiner can normally be reached Monday - Friday 7:30 a.m. - 4:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Keith O. Robinson, Ph.D.  
Examiner  
Art Unit 1638  
/David H Kruse/  
Primary Examiner, Art Unit 1638  
August 27, 2008